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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/079,251 | 02/19/2002 | Hiroshi Matsushita | SS-734-06 | 7244 |

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| EXAMINER | |
|---|---|
| DOAN, PHUOC HUU | |
| **ART UNIT** | **PAPER NUMBER** |
| 2684 | 6 |

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/079,251 | MATSUSHITA ET AL. | |
| | Examiner | Art Unit | |
| | Phuoc H Doan | 2684 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-10* is/are rejected.

7)☒ Claim(s) *2* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, and 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over McBurney et al. (US Patent No: 6,437,734) in view of Kikuchi et al. (Pub No.: US 2003/0031185).

As to claim1, McBurney et al. disclose a network-assisted navigation satellite receiver system (Fig. 1, item 2), comprising: a network server (Fig. 1, item 106) with a first navigation satellite receiver for computing accurate, absolute time (col. 4, lines 1-40); a network client (Fig. 1, item 104) with a second navigation satellite receiver and operating according to a relative time (col. 3, lines 40-67); wherein, a solution at the network client by the offset calculator of said offset time added to said accurate, absolute time, provides for improved receiver initialization. See (col. 5, lines 12-67, and col. 7 through col. 8, lines 27-20). However, McBurney et al. do not disclose that an interconnecting network for communicating information related to said accurate, absolute time from the network server to the network client, and that imposes a non-deterministic time delay on messages; a message latency testing means for determining the fastest transit times of messages from the network server to the network client L1, and

for determining the fastest transit times of return messages from the network client to the network server L2; and an offset calculator for computing said offset time from the average of the fastest transit times L1 and L2.

Kikuchi et al. disclose that an interconnecting network for communicating information related to said accurate (col. 1, paragraph [0019]), absolute time from the network server to the network client (col. 1, paragraph [0021]), and that imposes a non-deterministic time delay on messages. See (col. 1 through col. 2, paragraphs [0019-0021]); a message latency testing means for determining the fastest transit times of messages from the network server to the network client L1 (col. 4, paragraph [0063], and col. 14, paragraph [0207]), and for determining the fastest transit times of return messages from the network client to the network server L2 (col. 4, paragraph [0069]); and an offset calculator for computing said offset time from the average of the fastest transit times L1 and L2 (col. 5, paragraphs [0083], and [0090]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the networking for the message testing to determine of accurate, and absolute time of Kikuchi et al. to the McBurney' system in order to reduce the cost of user navigation equipment and offered on the internet which are related to real-time, and search speed.

As to claim 3, McBurney et al. disclose a network-assisted navigation satellite receiver system (Fig. 1, item 2), comprising: a network server (Fig. 1, item 106) with a first navigation satellite receiver for computing accurate, absolute time (col. 4, lines 1-40), and providing for connection to a data network

(col. 2 through col. 3, lines 50-5); a network client with a second navigation satellite receiver and operating according to a relative time (col. 7, lines 33-50), and further providing for connection to said data network (col. 3 through col. 4, lines 40-62); wherein, a solution at the network client by the offset calculator of said offset time added to said accurate, absolute time, provides for improved receiver initialization. See (col. 5, lines 12-67, and col. 7 through col. 8, lines 27-20). However, McBurney et al. do not disclose a message latency testing means for determining the fastest transit times of messages from the network server to the network client (L1), and for determining the fastest transit times of return messages from the network client to the network server (L2); and an offset calculator for computing said offset time from the average of the fastest transit times L1 and L2.

Kikuchi et al. disclose a message latency testing means for determining the fastest transit times of messages from the network server to the network client L1 (col. 4, paragraph [0063], and col. 14, paragraph [0207]), and for determining the fastest transit times of return messages from the network client to the network server L2 (col. 4, paragraph [0069]); and an offset calculator for computing said offset time from the average of the fastest transit times L1 and L2 (col. 5, paragraph [0083]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the networking for the message testing to determine of accurate, and absolute time of Kikuchi et al. to the McBurney' system in order to reduce the cost of user

navigation equipment and offered on the internet which are related to real-time, and search speed.

As to claim 4, McBurney et al. disclose a method for fast initialization of a navigation satellite receiver (Fig. 1, item 2), the method comprising the steps of: locking onto and tracking a first constellation of navigation satellites with a first navigation satellite receiver (col. 3, lines 40-50, and col. 4, lines 1-15); obtaining absolute time with said first navigation satellite receiver (col. 5, lines 40-52); providing a server on a network for transmitting said absolute time from said first navigation satellite receiver (col. 4, lines 10-20); connecting as a client to said network (col. 5, lines 12-22); initializing a second navigation satellite receiver located at said client with said report of said absolute time and said offset time such that it may find and lock onto a second constellation of navigation satellites (col. 3, lines 40-50, and col. 5, lines 23-52); wherein, said second navigation satellite receiver is initialized more rapidly with a priori time information (col. 5 through col. 6, lines 52-34). However, McBurney et al. do not disclose that testing a path delay of said network between said server and said client to determine an offset time of said client from said server; obtaining at said client a report of said absolute time over said network.

Kikuchi et al. disclose that testing a path delay of said network between said server and said client to determine an offset time of said client from said server (col. 13, paragraphs [0184-0185], and col. 5, paragraphs [0083], [0090]); obtaining at said client a report of said absolute time over said network (col. 1, paragraph [0021], and col. 12, paragraph [0181]). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to provide the networking for the message testing to determine of accurate, and absolute time of Kikuchi et al. to the McBurney' system in order to reduce the cost of user navigation equipment and offered on the internet which are related to real-time, and search speed.

As to claim 5, McBurney et al. further disclose that comprising the step of: charging a fee to a user of said client for providing said a priori time information (col. 4, lines 53-62).

As to claim 6, the combination of McBurney et al. and Kikuchi et al. further disclose a method for determining a path delay between a client and a server on a network (Fig. 1, col. 1, paragraph [0019] of Kikuchi et al.), the method comprising the steps of: sending a first message L1 from a server to a client at a time T1 (col. 4, paragraph [0063-0067], and col. 14, paragraph [0207] of Kikuchi et al.); receiving said first message L1 at said client at a time T2 (col. 4, paragraph [0067] of Kikuchi et al.); sending a second message L2 from said client back to said server at a time T3 (col. 4, paragraph [0069] of Kikuchi et al.); receiving said second message L2 at said server at a time T4 (col. 4, paragraphs [0063-0067], and col. 6, paragraph [0117] of Kikuchi et al.); repeating the sending of said first and second messages (col. 4, paragraphs [0063], and [0067] of Kikuchi et al.); selecting a fastest transit time of each of said first and second messages (col. 2, paragraph [0027]), and col. 5, paragraph [0090] of Kikuchi et al.); and estimating a network path delay from only those transit times chosen in

the step of selecting (col. 7, paragraphs [0126-0127], and col. 8, paragraph [0135] of Kikuchi et al.).

As to claim 7, the combination of McBurney et al. and Kikuchi et al. further disclose that comprising the steps of: clocking absolute time at said server (col. 1, paragraph [0021], and col. 4, paragraph [0063] of Kikuchi et al.); keeping relative time at said client (col. 14, paragraph [0207] of Kikuchi et al.); and computing an offset of said relative time from said absolute time from information obtained in the step of estimating (col. 1, paragraph [0021], and col. 12, paragraph [0181] of Kikuchi et al.).

As to claim 8, McBurney et al. further disclose that comprising the steps of: initializing a navigation satellite receiver with time information obtained in the step of computing (col. 4, lines 10-20, and col. 5, lines 40-52).

As to claim 9, McBurney et al. further disclose that comprising the steps of: accelerating an initialization of a navigation satellite receiver with time information obtained in the step of computing (col. 4, lines 10-20, and col. 5, lines 40-52).

As to claim 10, McBurney et al. further disclose that comprising the steps of: charging a user fee for any absolute-plus-offset time information obtained in the step of computing (col. 4, lines 53-62, and col. 5, lines 40-52).

***Allowable Subject Matter***

2. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 2, the combination of McBurney et al. and Kikuchi et al. do not disclose that wherein the offset calculator provides for a solution to said offset that can be expressed as, offset = [T 1 - T 2 + ( [L 1] divide [L 2] ) ( T 4 - T 3 )] divided [1 + ( L 1 L 2 )] ,where, T1 is the time a test message leaves the network server, T2 is the time that message arrives at the network client, T3 is the time a return message leaves the network client, T4 is the time that return message arrives at the network server, L1 is T1-T2, and L2 is T4-T3.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Garin et al. (US Patent No : 6,427,120) disclose "information transfer in a multimode global positioning system used with wireless networks".

Hodge (US Patent No: 6,438,703) discloses "Method for providing a precise network time service".

Gruber et al. (US Patent No : 5,450,394) discloses "Delay monitoring of telecommunication networks".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuoc H Doan whose telephone number is 703-305-6311. The examiner can normally be reached on 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung A Nay can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Doan/Phuoc

Phuoc Doan

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